UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,462	04/22/2005	Shinobu Inoue	10921.309USWO	1621

52835 7590 01/13/2009

HAMRE, SCHUMANN, MUELLER & LARSON, P.C.
P.O. BOX 2902
MINNEAPOLIS, MN 55402-0902

EXAMINER	
RALIS, STEPHEN J	

ART UNIT	PAPER NUMBER
3742	

MAIL DATE	DELIVERY MODE
01/13/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/532,462	INOUE ET AL.	
	Examiner	Art Unit	
	STEPHEN J. RALIS	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 April 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/05/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment/Arguments

1. Applicant's arguments, see page 6-8, filed 30 October 2008, with respect to the rejection(s) of claim(s) 1-7 under 35 U.S.C. 102(a) and (e) and 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of McNamara (U.S. Publication No. 2003/0037432), as evidenced by Ray (U.S. Patent No. 5,943,768).

2. NOTE: No English translation of Japanese Application No. 2002-307059 has been filed to overcome the rejection over Motomi et al. (U.S. Patent No. WO 03/039941 A1), therefore, the rejection is still outstanding as set forth below.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the plurality of joisted-locating jigs" in line 7; the limitation "the joisted-locating jig" in lines 10-11, 12-13; and "other joisted-locating jig" in line 14. There is insufficient antecedent basis for this limitation in the claim. It is unclear and uncertain to the examiner the relationship between "a plurality of ***movable*** joisted-locating jigs" and "the joisted-locating jig", "the plurality of joisted-locating jigs" or "there

joisted-locating jig". Further clarification is required to either provide sufficient antecedent basis or to distinguish the elements from the previously recited element. It is recommended to replace at least all instances asserted above with –the plurality of ***movable*** joisted-locating jigs– to provide clear and consistent terminology throughout the claim(s) (except "other joisted-locating jigs").

In general, the claims are replete with such 35 U.S.C. 112, second paragraph issues. The above notes are exemplary with respect to all of the 35 U.S.C. 112, second paragraph rejections present in the instant case, all claims must be carefully reviewed and appropriate corrections should be made in response to this rejection.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 and 2 are rejected under 35 U.S.C. 102(a) as being anticipated by Motomi et al. (U.S. Patent No. WO 03/039941 A1; Note: U.S. Publication No. 2005/0017057 used for US equivalency).

Motomi et al. disclose a method of assembling a car body by spot welding a bridging part (roof 31) to a pair of side members (4) fixed to an underbody (3) of a car, the method comprising: installing a pair of frames (suspension frames 34) at sides of a transfer line for transferring the underbody (3) and the side members (4); attaching a plurality of movable joisted-locating jigs (35, 36) to the frames (34) for locating the side members (4) and the bridging part (roof 31), the plurality of joisted-locating jigs are spaced from each other in a transfer direction of the underbody (see Figures 9-12); and spotwelding the side members (4) to the bridging part (roof 31), with the side members (4) and the bridging part (roof 31) clamped by the joisted-locating jigs (35, 36) (page 6, paragraph 54 – page 7, paragraph 65; see Figures 9-12); wherein a transfer system (see Figure 12) is employed to convey each of the joisted-locating jigs (35, 36) from a first stock area (42-1) to the frames (34) for attachment thereto and from the frames (34) to a second stock area (42-2) for replacement with other joisted-locating jigs which are also conveyed from the first stock are to the frames (34).

With respect to the limitations of claim 2, Motomi et al. disclose the frames (34) and each of the joisted-locating jigs (35, 36) being located and fixed by a clamp mechanism (transporter robots 37-1, 37-2 having clamp mechanism to grab, move and position the suspension jigs 35, 36).

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara et al. (U.S. Patent No. 6,595,407) in view of McNamara (U.S. Publication No. 2003/0037432), as evidenced by Ray (U.S. Patent No. 5,943,768).

McNamara et al.'407 disclose a method of assembling a car body by spot welding a bridging part to a pair of side members fixed to an underbody of a car (roof, floor and side body, column 1, lines 17-19; sub-elements; column 2, lines 29-43; column 3, lines 60-63), the method comprising the steps of: installing a pair of frames (lifter housing 42 being tooled with supporting beams 26; column 4, lines 27-51) at sides of a transfer line for transferring the underbody (not shown) and the side members (not shown); attaching a plurality of movable joisted-locating jigs (framing pair 18 having framing gates 20) to the frames (lifter housing 42 being tooled with supporting beams 26) for locating the side members (not shown) and the bridging part (not shown); and spotwelding (welding) the side members (not shown) to the bridging part (not shown), with the side members (not shown) and the bridging part (shown) clamped by the joisted-locating jigs (framing pair 18 having framing gates 20) (column 2, lines 43-49; column 3, line 56 – column 8, line 52); wherein a transfer system (see Figure 3) is employed to convey the joisted-locating jigs (framing gates 20 of the framing pair 18) from a first stock area (forward or back) to the frames (lifter housing 42 being tooled with supporting beams 26) for attachment thereto and from the frames (being spaced from each other in a transfer direction of the underbody) to a second stock area (forward or back) for replacement with other joisted-locating jigs which are also conveyed from the first stock area (forward or back) to the frames (housing 42 being

tooled with supporting beams 26) being spaced from each other in a transfer direction of the underbody) (column 3, lines 14-20; column 8, lines 22-52; whole document).

With respect to the limitations of claim 2, McNamara et al.'407 disclose the frame (lifter housing 42 being tooled with supporting beams 26) and the joisted-locating jig (one of framing gates 20 of the framing pair 18) being located and fixed by a clamp mechanism (framing station 12 having clamp mechanism to grab, move and position the framing gates 20).

McNamara et al.'407 discloses all of the limitations of the claimed invention, as previously set forth, except for the plurality of joisted-locating jigs being spaced from each other in a transfer direction of the underbody.

However, a plurality of joisted-locating jigs being spaced from each other in a transfer direction of the underbody is known in the art. McNamara'432, for example teaches a plurality of joisted-locating jigs (60) being spaced from each other in a transfer direction of the underbody (page 3, paragraphs 33-34; see Figures 1-11). NOTE: the plurality of joisted-locating jigs (18/20) combination of McNamara et al.'407 is equivalent to 60 of McNamara'432. Ray further teaches the advantage of such a configuration provides a means to supply intergral construction of lateral and cross beams that is fixed, thereby reducing the amount of deviation during the production process. Therefore, in view of McNamara'432, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the plurality of joisted-locating jigs of McNamara et al.'407 with the plurality of joisted-locating jigs being spaced from each other in a transfer direction of the underbody to provide

additional support, since as evidenced by Ray, providing cross beams interconnected with lateral beams provides a means to supply intergral construction of lateral and cross beams that is fixed, thereby reducing the amount of deviation during the production process.

11. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara et al. (U.S. Patent No. 6,595,407) in view of McNamara (U.S. Publication No. 2003/0037432), as evidenced by Ray (U.S. Patent No. 5,943,768) as applied to claims 1 and 2 above, and further in view of Kozai (Japanese Publication No. JP 62110580A) and Wood et al. (U.S. Patent No. 5,972,112).

McNamara et al.'407 in view of McNamara'432 and Ray discloses all of the claimed limitations, as previously set forth, except for the transfer system including a motor, a movable rail moved up and down by the motor, a fixed rail to be combined with the movable rail, and a pulley movable along the movable rail and the fixed rail, the joisted-locating jig being hung from the pulley; a sway prevention mechanism being furnished for preventing the movable rail from swaying when the movable rail and the fixed rail are disconnected; and the sway prevention mechanism including a pair of vertical rods attached to the movable rail and a pair of fixed guides fixed to an immovable structure, the vertical rods being movable relative to the fixed guide via a roller.

However, a transfer system including a motor, a movable rail moved up and down by the motor, a fixed rail to be combined with the movable rail, the joisted-

locating jig being hung from the movable rail; a sway prevention mechanism being furnished for preventing the movable rail from swaying when the movable rail and the fixed rail are disconnected; and the sway prevention mechanism including a pair of vertical rods attached to the movable rail and a pair of fixed guides fixed to an immovable structure is known in the art. Kozai, for example, teaches a car assembly method comprising a motor (lift cylinder 23 having a motor), a movable rail (15a) moved up and down by the motor (see Figure 1), a fixed rail (15) to be combined with the movable rail (see Figure 1), the joisted-locating jig (19) being hung from the movable rail (15a); a sway prevention mechanism (vertical rods on each side of lifting cylinder 23) being furnished for preventing the movable rail from swaying when the movable rail and the fixed rail are disconnected (see Figure 1); and the sway prevention mechanism including a pair of vertical rods (see Figure 1) attached to the movable rail and a pair of fixed guides (structure above vertical rods) fixed to an immovable structure. Kozai further teaches the advantage of such a configuration provides a means to simplify equipment for assembly for multiple parts by utilizing one loader, thereby reducing the loaders required to be used (English translation; Abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify McNamara et al. with the overhead trolley loader configuration of Kozai in order to provide a means to simplify equipment for assembly for multiple parts by utilizing one loader, thereby reducing the loaders required to be used.

McNamara et al.'407 in view of McNamara'432, Ray and Kozai discloses all of the claimed limitations, as previously set forth, except for a pulley movable along the movable rail and the fixed rail, the joisted-locating jig being hung from the pulley.

However, a pulley attached to a movable frame/carrier and vertical rods being movable relative to a fixed guide via a roller is known in the art. Wood et al., for example, teach a pulley system (cable 44, pulley 40 and winches 44, 48) on movable carrier (column 2, lines 55 – column 3, line 1). Wood et al. further teach the advantage of such a configuration provides the ability to selectively operate together the pulley systems, providing the ability to raise and lower the movable rail based on desired location, thereby increasing the overall versatility of the trolley locator. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the trolley locator of McNamara et al.'407 in view of McNamara'432, Ray and Kozai with the pulley system on the lower part of Wood et al. in order to provide the ability to selectively operate together the pulley systems, providing the ability to raise and lower the movable rail based on desired location, thereby increasing the overall versatility of the trolley locator.

McNamara et al.'407 in view of McNamara'432, Ray, Kozai and Wood et al. discloses all of the claimed limitations, as previously set forth, except for the vertical rods being movable relative to the fixed guide via a roller.

With respect to claim 5, moving a vertical rods relative to a fixed guide via a roller, e.g. does not patentably distinguish the claimed invention from the prior art, because this has long been the conventional (well-known) manner of providing

controlled motion in a vertical direction along a vertical rod, as evidenced by the use of guide rails and rollers in elevator shafts,. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the vertical guide rods of McNamara et al.'407 in view of McNamara'432, Ray, Kozai and Wood et al. with rollers to move the vertical guide rods relative to a fixed guide since it was known in the art moving a vertical rods relative to a fixed guide via a roller provides controlled motion, thereby increasing the operational safety of the device.

12. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara et al. (U.S. Patent No. 6,595,407) in view of McNamara (U.S. Publication No. 2003/0037432), as evidenced by Ray (U.S. Patent No. 5,943,768), Kozai (Japanese Publication No. JP 62110580A) and Wood et al. (U.S. Patent No. 5,972,112) as applied to claims 3-5 above, and further in view of Japanese Publication (JP53-151007U).

McNamara et al.'407 in view of McNamara'432, Ray, Kozai and Wood et al. discloses all of the claimed limitations, as previously set forth, except for a fall prevention mechanism being provided at the movable rail for preventing the pulley from falling out of the movable rail; the fall prevention mechanism including a stopper that turns on the predetermined pivot, the stopper being movable between a position at which the stopper engages with the pulley and a position at which the stopper is disengaged from the pulley.

However, a fall prevention mechanism for preventing the pulley from falling out of the movable rail including a stopper that turns on the predetermined pivot, the stopper being movable between a position at which the stopper engages with the pulley and a position at which the stopper is disengaged from the pulley is known in the art. JP53-151007, for example, teaches a stopper device comprising a fall prevention mechanism (arms 6a, 6b of 6) for preventing the pulley (wheel 8) from failing of the movable rail (1). JP53-151007 further teaches the advantage of such a configuration prevents the moving vehicle from being disengaged from the rails, thereby increasing the operational safety of the trolley mechanism (page 1). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the trolley locator of McNamara et al.'407 in view of McNamara'432, Ray, Kozai and Wood et al. with the stopper deice of JP53-15007U in order to provide a means to configure and prevent the moving vehicle from being disengaged from the rails, thereby increasing the operational safety of the trolley mechanism.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN J. RALIS whose telephone number is (571)272-6227. The examiner can normally be reached on Monday - Friday, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen J Ralis/
Primary Examiner, Art Unit 3742

/TU B HOANG/
Supervisory Patent Examiner, Art Unit 3742

Stephen J Ralis
Primary Examiner
Art Unit 3742

SJR
January 04, 2009